In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (currently amended) A method for calibrating a bidirectional communication channel, including a first component having a transmitter, a second component having a receiver, and a communication link coupling the first and second components, the communication channel having a timing parameter with an operation value determined by calibration; comprising:

establishing an operation value for a timing parameter of the communication channel; and

executing a drift calibration sequence, from time to time, to determine a drift value for the timing parameter of the communication channel, wherein drift calibration sequence comprises an algorithm different than used to establish the operation value; and

updating the operation value in response to the drift value.

2. (currently amended) The method of claim 1, wherein said establishing includes executing a first calibration sequence to set the operation value of the timing parameter of the communication channel, and wherein the drift calibration sequence utilizes less resources of the communication channel than the first calibration sequence.

3. (currently amended) A method for calibrating a bidirectional communication channel, including a first component having a transmitter, a second component having a receiver, and a communication link coupling the first and second components, the communication channel having a tparameter with an operation value determined by calibration; comprising:

establishing an operation value for a parameter of the communication channel using a first calibration sequence; and

executing a drift calibration sequence, from time to time, to determine a drift value for the parameter of the communication channel, wherein drift calibration sequence comprises an algorithm different than used to establish the operation value; and

updating the operation value in response to the drift value, wherein the first calibration sequence includes exchanging first calibration patterns between the first component and the second component, and the drift calibration sequence includes exchanging second calibration

patterns between the first component and the second component, wherein the second calibration patterns are shorter than the first calibration patterns.

4. (original) The method of claim 3, wherein said first calibration patterns comprise sequences of more than 200 bits, and said second calibration patterns comprise sequences having less than 130 bits.

5. (original) The method of claim 3, wherein said first calibration patterns comprise sequences of more than 30 bytes, and said second calibration patterns comprise sequences of less than or equal to 16 bytes.

6. (original) The method of claim 3, wherein said first calibration patterns comprise sequences of more that 30 bytes, and said second calibration patterns comprise sequences of less than or equal to 8 bytes.

7. (original) The method of claim 3, wherein said first calibration patterns comprise pseudorandom bit sequences having a length 2^N-1, where N is equal to 7 or more, and said second calibration patterns comprise codes having lengths less than or equal to 4 bytes.

8. (currently amended) The method of claim [[1]] 3, wherein said drift calibration sequence includes iteratively

adjusting the parameter to a first edge value;

transmitting calibration patterns on the communication link using the transmitter on the first component;

receiving the calibration patterns on the communication link using the receiver on the second component;

determining whether the received calibration patterns indicate that a new edge value is met, and, if not, returning to the adjusting, and if a new edge value is met, then saving data indicating drift of the first edge value, and determining the drift value in response to a function of the drift of the first edge value.

9. (currently amended) The method of claim [[1]] 3, wherein said second calibration sequence includes iteratively

adjusting the parameter to a first edge value;

transmitting calibration patterns on the communication link using the transmitter on the first component;

receiving the calibration patterns on the communication link using the receiver on the second component;

determining whether the received calibration patterns indicate that a new edge value is met, and, if not, returning to the adjusting, and if a new edge value is met, then saving data indicating drift of the first edge value; and then

adjusting the parameter to a second edge value;

transmitting calibration patterns on the communication link using the transmitter on the first component;

receiving the calibration patterns on the communication link using the receiver on the second component;

determining whether the received calibration patterns indicate that a new edge value is met, and, if not, returning to the adjusting, and if a new edge value is met, then saving data indicating drift of the second edge value; and

determining the drift value in response to a function of the drift of the first and second edge values.

10. (currently amended) The method of claim 1, wherein the timing parameter comprises a drive timing point for the transmitter on the first component.

11. (currently amended) The method of claim 1, wherein the timing parameter comprises a receive timing point for the receiver on the second component.

12. (original) A method for calibrating a communication channel, including a first component having a transmitter coupled to a signal source, a second component having a receiver coupled to a signal destination and a communication link coupling the first and second components, the communication channel transmitting data from the signal source using the transmitter on the first

component and receiving data using the receiver on the second component with a parameter of the communication channel set to an operation value; the method comprising:

executing a first calibration sequence;

the first calibration sequence including iteratively adjusting a value of a first edge parameter, transmitting a long calibration pattern using the transmitter on the first component, receiving the long calibration pattern using the receiver on the second component, and analyzing the received long calibration pattern to determine a value for the first edge parameter;

the first calibration sequence also including iteratively adjusting a value of a second edge parameter, transmitting a long calibration pattern using the transmitter on the first component, receiving the long calibration pattern using the receiver on the second component, and analyzing the received long calibration pattern to determine a value for the second edge parameter; and

as a result of the first calibration sequence, determining said operation value for the parameter based on the function of the values of the first and second edge parameters;

executing a second calibration sequence;

the second calibration sequence including iteratively adjusting a value of a drift reference parameter for a drift calibration function, transmitting a short calibration pattern using the transmitter on the first component, receiving the short calibration pattern using the receiver on the second component, and analyzing the received short calibration pattern to determine a value for the drift reference parameter; and

as a result of the value of the drift reference parameter, determining a drift value for the operation value for the parameter; and

updating said operation value based on said drift value, wherein the long calibration patterns have lengths of at least 30 bytes, and the short calibration patterns have lengths of 16 bytes, or less.

13. (original) The method of claim 12, wherein the operation value of the parameter is an average of the first and second edge values.

14. (original) The method of claim 12, wherein the operation value of the parameter is a weighted average of the first and second edge values.

15. (original) The method of claim 12, wherein the parameter comprises a drive timing point for the transmitter on the first component.

16. (original) The method of claim 12, wherein the parameter comprises a receive timing point for the receiver on the second component.

17. (original) The method of claim 12, wherein the long calibration patterns comprise pseudorandom bit sequences having a length 2^N-1, where N is equal to 7 or more.

18. (original) The method of claim 12, wherein the short calibration patterns comprise fixed codes.

19. (currently amended) An apparatus coupled to a bidirectional communication channel, the channel including a first component having a transmitter, a second component having a receiver, and a communication link coupling the first and second components, the communication channel having a <u>timing</u> parameter with an operation value determined by calibration; comprising:

logic to establish an operation value for the <u>timing</u> parameter; and

logic to execute a drift calibration sequence, from time to time, to determine a drift value for the <u>timing</u> parameter, wherein drift calibration sequence comprises an algorithm different than used to establish the operation value; and

logic to update the operation value in response to the to the drift value.

20. (currently amended) The apparatus of claim 19, wherein said logic to establish the operation value includes resources to execute a first calibration sequence to set the operation value of the <u>timing</u> parameter of the communication channel, and wherein the drift calibration sequence utilizes less resources of the communication channel than the first calibration sequence.

21. (currently amended) <u>An apparatus coupled to a bidirectional communication channel, the channel including a first component having a transmitter, a second component having a receiver, and a communication link coupling the first and second components, the communication channel having a parameter with an operation value determined by calibration; comprising:</u>

logic to establish an operation value for the parameter; and

logic to execute a drift calibration sequence, from time to time, to determine a drift value for the parameter, wherein drift calibration sequence comprises an algorithm different than used to establish the operation value; and

logic to update the operation value in response to the to the drift value ~~The apparatus of claim 20~~, wherein the first calibration sequence includes exchanging first calibration patterns between the first component and the second component, and the drift calibration sequence includes exchanging second calibration patterns between the first component and the second component, wherein the second calibration patterns are shorter than the first calibration patterns.

22. (original) The apparatus of claim 21, wherein said first calibration patterns comprise more than 200 bits and the second calibration patterns comprise less than 130 bits.

23. (original) The apparatus of claim 21, wherein said first calibration patterns comprise more than 30 bytes, and said second calibration patterns comprise less than or equal to16 bytes.

24. (original) The apparatus of claim 21, wherein said first calibration patterns comprise more than 30 bytes, and said second calibration patterns comprise less than or equal to 8 bytes.

25. (original) The apparatus of claim 21, wherein said first calibration patterns comprise pseudorandom bit sequences having a length 2^N-1, where N is equal to 7 or more, and said second calibration patterns comprise less than or equal to 4 bytes.

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